

**DERWENT-** 1988-015248**ACC-NO:****DERWENT-** 198803**WEEK:****COPYRIGHT 1999 DERWENT INFORMATION LTD****TITLE:** Pulverised coal gasifier under pressure - with tubular wall structure sep'd. by water filled space from pressure vessel**INVENTOR:** KOHNEN, K; NIERMANN, H ; ULLRICH, N**PATENT-ASSIGNEE:** KRUPP-KOPPERS GMBH [KOPS]**PRIORITY-DATA:** 1986DE-3623604 (July 12, 1986)**PATENT-FAMILY:**

| <b>PUB-NO</b>      | <b>PUB-DATE</b>   | <b>LANGUAGE</b> | <b>PAGES</b> | <b>MAIN-IPC</b> |
|--------------------|-------------------|-----------------|--------------|-----------------|
| DE 3623604 A       | January 14, 1988  | N/A             | 004          | N/A             |
| DE 3762352 G       | May 23, 1990      | N/A             | 000          | N/A             |
| <u>EP 254830</u> A | February 3, 1988  | G               | 000          | N/A             |
| <u>EP 254830</u> B | April 18, 1990    | N/A             | 000          | N/A             |
| ES 2014450 B       | July 16, 1990     | N/A             | 000          | N/A             |
| US 4818253 A       | April 4, 1989     | N/A             | 004          | N/A             |
| ZA 8703584 A       | November 11, 1987 | N/A             | 000          | N/A             |

**DESIGNATED-STATES:** DE ES GR DE ES GR**CITED-DOCUMENTS:** A3...198833; DE 1063314 ; EP 79092 ; FR 2375317 ; No-SR.Pub ; US 3018174**APPLICATION-DATA:**

| <b>PUB-NO</b> | <b>APPL-DESCRIPTOR</b> | <b>APPL-NO</b> | <b>APPL-DATE</b> |
|---------------|------------------------|----------------|------------------|
| DE 3623604A   | N/A                    | 1986DE-3623604 | July 12, 1986    |
| EP 254830A    | N/A                    | 1987EP-0107177 | May 18, 1987     |
| US 4818253A   | N/A                    | 1987US-0060357 | June 9, 1987     |

**INT-CL (IPC):** C01J003/48, C10J003/48 , F27D015/02**ABSTRACTED-PUB-NO:** DE 3623604A**BASIC-ABSTRACT:**

A gasification reactor for finely distributed solid fuel under high pressure with oxygen contg. gases is designed as a tubular cooling wall structure inside a pressure vessel. The cooling water circuits of the wall terminate in the water filled space between it and the pressure vessel. This space has a common cooling water outlet through the pressure vessel wall.

**ADVANTAGE** - This prevents any contact of the hot product gas with the pressure vessel and eliminates the risk of corrosion. Forced coolant circulation ensures a reliable cooling of the tubular wall structure.

**ABSTRACTED-PUB-NO:** EP 254830B

**EQUIVALENT-ABSTRACTS:**

1. Equipment for the gasification of finely comminuted, especially solid fuels with oxygen-containing gases under elevated pressure, wherein the gasification reactor is designed as a pipe wall structure to which cooling water is applied and which is surrounded at a distance by a pressure shell, characterised in that the cooling water outlets (10a-10e) of the cooling circulations (1a-1e) of the pipe wall structure (1) lead into the water-filled space (11) between pipe wall structure (1) and pressure shell (4), and this space, which is provided with a cooling water discharge line (12) penetrating the pressure shell (4), is sealed gas-tight and/or water-tight from the interior (2) of the pipe wall structure (1). (5pp)

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Gasifier for finely divided fuels has a pipe wall structure of cooling H<sub>2</sub>O pipe circuits which enclose a reactor space and surrounded by a pressure jacket. A common water discharge conduit is provided in the jacket. The reactor space and the gap between the jacket and pipe circuits are hermetically separated. **ADVANTAGE** - Operationally reliable.

(4pp)

**CHOSEN-** Dwg. 0/1

**DRAWING:**

**TITLE-** PULVERISE COAL GASIFICATION PRESSURE TUBE WALL STRUCTURE  
**TERMS:** SEPARATE WATER FILLED SPACE PRESSURE VESSEL

**DERWENT-CLASS:** H09 Q77

**CPI-CODES:** H09-C;

**SECONDARY-ACC-NO:**

**CPI Secondary Accession Numbers:** C1988-006606

**Non-CPI Secondary Accession Numbers:** N1988-011407